

REMARKS

I. STATUS OF THE CLAIMS

Claims 1 and 5-20 are pending in the present Application. Claims 1, 9, 13, 15, and 19 are amended by the present amendment.

Claims 9-20 are rejected under 35 U.S.C. 101 because the disclosed invention is inoperative and therefore lacks utility.

Claims 1 and 5 are rejected under 35 U.S.C 103(a) as being unpatentable over Scarlett, 2,486,987, in view of Grisley, 5,711,356.

Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scarlett, in view of Grisley, and in further view of Shepherdson, 1,419,647, and Blake et al., 2,000,915.

Claims 9, 12-15, and 18-20 are also rejected under 35 U.S.C. 103(a) as being unpatentable over Scarlett, in view of Shepherdson, and Langue, D429,096.

Applicant respectfully traverses all rejections and requests reconsideration.

A. REJECTION UNDER 35 U.S.C. § 101

As mentioned above, Claims 9-20 are rejected under 35 U.S.C 101 because the disclosed invention is inoperative and therefore lacks utility. In rejecting Claims 9-20, Examiner stated that:

*"Claim 9 recites 'one or more of the joints support a tabletop' in line 24 and claim 15 recites 'a tabletop is supported and stabilized only by one or more joints' (two or more joints), which makes impossible for the tabletop to be supported with one or two joints. For the tabletop to be supported at least three joints are required to support the tabletop. Therefore, one joint or two joints makes the tabletop inoperable as the tabletop cannot be supported and stabilized." (Office Action, pg. 2)*

Applicant has amended Claim 9 to recite "three or more of said joint" for supporting the tabletop. Claims 10-14 depend directly or indirectly on amended Claim 9. Claim 15 has been amended to remove rejected language and Claims 16-20 depend directly or indirectly on amended Claim 15, all with further limitations.

Accordingly, Applicant respectfully requests withdrawal of the rejection of claims 9-20 under Section 101.

B. REJECTION UNDER 35 U.S.C § 103(a)

As mentioned above, Claims 1 and 5 are rejected under 35 U.S.C 103(a) as being unpatentable over Scarlett, in view of Grisley. In rejecting Claims 1 and 5, Examiner stated:

*“Scarlett discloses, in Figures 5 and 8, a double locking mortise joint comprising a first member and a second member. . . . However, at least one of the two mortise corners is not rounded. Grisley teaches between Figures 9b and 9c at least one of two mortise corners being rounded as part of a design choice. Therefore, as taught by Grisley, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make at least one of the two mortise corners being rounded instead of being square-edged.”*  
(Office Action, pg. 3-4)

Applicant respectfully traverses Examiner’s rejections as explained below.

Grisley

Grisley discusses a template to support and guide a cutting tool used to cut joint members in a work piece. See Grisley Fig. 1. The template is intended for making finger joints or box joints. (Grisley, col. 1, lines 8-10 and col. 2, lines 38-29). Grisley further teaches round end-on-end finger joints. (Figure 9c).

Claims 1 and 5 are allowable over Scarlett in view of Grisley

The three criteria for establishing a prima facie case of obviousness must exist at the time the claimed invention was made, according to the text of Section 103(a) itself. The Examiner has not established a prima facie case of obviousness using Scarlett and Grisley for at least the reasons stated below.

Regarding amended Claims 1 and 5, there is no suggestion or motivation in Grisley to modify Scarlett to make these claims unpatentable. In particular, there is no suggestion or motivation in the prior art to modify Scarlett to obtain the limitations recited in amended Claims 1 and 5 of “at least one of said two mortise corners is rounded”. Grisley has been specifically cited as teaching in figures 9b and 9c, finger joints with rounded corners. As Applicant had discussed in the background section of the specification, the problem with finger joints is that when the two boards are joined together, the weight from the two boards on either side of the joint puts stress on the joint and weakens the structural integrity of the

joint. (See Applicant's Specification, par. 0015, page 6, lines 10-13). Thus, the finger joint provides no shear strength and is mainly used for making moldings and trims. The molding formed by a finger joint is always fastened to a wall, ceiling, or other flat and strong substrate to maximize its strength. Lastly, an adhesive must be used to secure the finger joint. (See Specification, par. 0015, page 6 lines 8-17). As discussed in the MPEP, "A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220." (See §2141.02) "The mere fact that references can be combined or modified does not render the resultant combination obvious unless the prior art also suggests the desirability of the combination. *In re Mills*, 916 F.2d 680." (See §2141.03) "It is improper to combine references where the references teach away from their combination. *In re Grasselli*, 713 F.2d 731, 743" (See §2145(X)(D)(2)). Therefore, Grisley provides no motivation to modify or combine references to obtain the limitations of applicant's claims, of "removably joined" members but rather teaches away from Applicant's claimed invention by its disclosure of finger joint production, an undesirable joint having numerous shortcomings as specifically discussed in the Applicant's specification. There is no objective reason to combine the teachings of the references.

Applicant discusses that either one or both of the mortise corners may be rounded and still provide "quick as well as secure assembly of the members" without the need for "tools, fastening material, or joint pieces". There is "structural integrity in the resulting joint", providing both good vertical strength as well as shear strength. Therefore, the rounding of the mortise corners is important not only in providing an aesthetically pleasing design but further contributes to the stability and ease in assembly of the joint. Such teachings are nowhere found in the combination of Grisley with Scarlett.

The second reason is there is no expectation of success for using the finger joint design of Grisley in combination with Scarlett. Again, the use of finger joints are used for moldings and trims and would not have been used in structures such as the chair of Scarlett requiring shear strength. In fact, Grisley teaches a template making joints with rounded corners whereby the fingers formed by the template are equal in length. The template device of Grisley, actually teaches away from Applicant's structure of the "head bottom being

shorter in length than the gusset top". As such, there is no reasonable expectation of success in using Grisley in combination with Scarlett.

The third reason is that the combination of the prior art references does not teach all of the claim limitations. Applicant has amended Claim 1 to include a further limitation that the gusset body has a substantially triangular shape. This limitation is not taught in either Grisley or Scarlett. Both Grisley and Scarlett teach of square or circular gusset bottom as depicted in Figure 4 of Scarlett and in Figures 8 and 9a of Grisley. Therefore, not all the limitations of amended Claim 1 are disclosed by Grisley in combination with Scarlett.

Thus, all three elements required for a rejection under Section 103(a) are missing with regard to amended Claims 1 and 5. The lack of any one of the three elements would make these claims allowable over Scarlett in combination with Grisley. Claims 5, 6-8 depend directly or indirectly on amended Claim 1, all with additional limitations, and are allowable for at least the same reasons as is amended Claim 1. With regard to Claims 6-8, the additional references of Shepherdson and Blake do not provide the required elements of amended Claim 1. Accordingly, Applicant respectfully requests withdrawal of the rejections of Claims 1, 5-8 under Section 103(a).

#### C. REJECTION UNDER SECTION 103(a), SCARLETT, SHEPHERDSON, AND LANGE

As mentioned above, Claims 9, 12-15 and 18-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scarlett, in view of Shepherdson and Lange. In rejecting Claim 9 the Examiner stated:

*"...Scarlett discloses, in Figures 5 and 8, a double locking mortise joint comprising one or more leg and an edge... However, Scarlett fails to disclose the leg being a table leg or the edge being a tabletop edge. Shepherdson teaches uses of applicant's joint to make chairs, settees, lounges, bedsteads, bureaus, cabinets or tables... Therefore, one of ordinary skill in furniture construction will use the joint in a table such that the leg is the leg of a table and the edge is the edge of a tabletop.*

*Given the joint used in the table as suggested by Shepherdson, the one joint will support a tabletop without any further supporting structural members or pieces existing below a horizontal plane, which lies at the joining of the first mortise and the second mortise (see Lange, Figure 1)." (Office Action, pg. 6-7)*

Applicant respectfully traverses Examiner's rejection as explained below.

Claims 9, 12-15, and 18-20 are allowable over Scarlett in view of Shepherdson, and Langué

A prima facie case of obviousness has not been established using Scarlett in view of Shepherdson, and Langué for at least the reasons stated below.

Regarding amended Claim 9, there is no suggestion or motivation to modify Scarlett, Shepherdson, and Langué to result in the limitations of amended Claim 9. Examiner states that Shepherdson teaches use of Applicant's joints to make chairs, settees, lounges, cabinets, or table, however, Shepherdson fails to make use of applicant's joint in that not all of the limitations of amended Claim 9 are taught; "wherein three or more of said joint support a tabletop without any further supporting structural members or connections existing below a horizontal plane which lies at the joining of the first mortise and the second mortise, each table leg of each joint being independently and separately removable from every other table leg." Figure 1 and Figure 9 of Shepherdson disclose additional support structures below the horizontal plane of the locking members. In Figure 1, "seat-supporting portion 22" supports the chair, in Figure 9, "side-supporting portions 50" and "lower rails 58" support the chair. Furthermore, Shepherdson fails to teach that each table leg is "independently and separately removable from every other table leg".

Langué further does not provide any suggestion as it is simply an ornamental design without disclosing the locking mechanisms used by the joints to support the tabletop. Applicant claims a "double locking mortise joint for table leg to tabletop...said table leg and said tabletop edge are ...removably joined together..." There is no teaching of what type of mechanism connects the table legs to the tabletop in Langué and probably requires some type of adhesive or connection by screw, bolt or other locking mechanism. There is also no disclosure of the table edge in Langué having a second mortise. In fact, Langué teaches away from the limitation of amended Claim 9 that the "head bottom is shorter in length than said gusset top". Langué apparently shows an equal head bottom and gusset top.

Regarding amended Claim 15, Examiner makes the same arguments for Scarlett as disclosed above for amended Claim 9, but does not assert any additional references. Examiner stated that Claim 9, 12-14, 15, and 18-20 are all rejected as obvious under Scarlett, Shepherdson, and Langué. Per argument above, Scarlett fails to disclose the leg being a table leg or the edge being a table edge. Although Shepherdson does teach use of a joint to make

tables, it uses additional support structures for supporting and stabilizing the joint which contradict Applicant's teachings. As mentioned, Figure 1 and Figure 9 of Shepherdson disclose additional support structures below the horizontal plane of the locking members.

Lange illustrates a table design that is supported by table legs, but there is a lack of disclosure of the joint mechanism. Lange's joint not only fails to have a "head bottom shorter in length than a gusset top" but neither is there any showing of a "second mortise" and further no disclosure is apparent of the table legs being removably joined to the table top. Amended Claim 15 describes, "wherein the joint provides support and stabilization without any additional support pieces." It cannot be determined whether the joints within Lange are supported by an additional support piece such as an adhesive, screw, or nails. Lange provides no teaching of the limitations of Applicant's claims. There is no motivation or suggestion to modify Scarlett, Shepherdson, and Lange, and ultimately no prima facie case for obviousness can be established.

In addition, the combination of Scarlett, Shepherdson, and Lange fail to teach all of the claim limitations of amended Claims 9 and 15. Applicant has amended Claims 9 and 15 to include the further limitation of a gusset body having a substantially triangular shape. This limitation is not taught in either of the previously mentioned prior art references. Lange has an oval-shaped gusset bottom (Figure 4) and Shepherdson has a rectangular shaped gusset bottom (Figure 8). Therefore, all the limitations of amended Claims 9 and 15 are not disclosed by Scarlett in view of Shepherdson, and Lange.

Accordingly, for the aforementioned reasons, no prima facie case of obviousness can be established for amended Claims 9 or 15. Claims 12-14 depend directly or indirectly on amended Claim 9, with further limitations, and therefore are also allowable for at least the same reasons as amended Claim 9. Claims 18-20 are directly or indirectly dependent on amended Claim 15, all with further limitations, and therefore are also patentable for at least the same reasons as amended Claim 15.


Given the foregoing arguments, the requirements for a prima facie case of obviousness have not been met. Accordingly, applicant respectfully requests withdrawal of the rejections of Claims 1, 5-8, 9, 12-14, 15, and 18-20 under section 103(a).

II. CONCLUSION

The above-discussed amendments and remarks are believed to place the present Application in condition for allowance. Should the Examiner have any questions regarding the above amendments, the Examiner is requested to telephone Applicant's representative at the number listed below.

Respectfully submitted,

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